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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,683	05/30/2000	Hoon Chang	678-498	1775

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DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
UNIONDALE, NY 11553

EXAMINER

NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/580,683

Applicant(s)CHANG ET AL. **Examiner**

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/26/04 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-2, 4-6 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Agarwal (WO 99/04521).

Agarwal discloses a system and method for transmitting data in a mobile communication system comprising the steps of segmenting a data stream into at least one consecutive frame having a variable data length, the data stream being segmented into a plurality of consecutive blocks having a variable data length which is a size is smaller than a predetermined size, each said consecutive block being segmented into a plurality of sub-consecutive blocks having a byte length (Page 26, lines 8-23 discloses a data stream is divided into the variable sized packets “frame relay packets” which is divided into the smaller block “payload of spackets”, Page 40, lines 1-20); attaching, at each head of the consecutive frames, a header including a first set of

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bits indicating the sequence number of a consecutive block to which a first sub-consecutive block is included and a second set of bits indicating the sequence number of a sub-consecutive block corresponding to the head and an indicator for indicating the last sub-block; and transmitting the header-attached consecutive frames (Page 26, lines 24 to page 27, lines 21; See Fig 7b, L is last sub-block, Packet sequence number, sub-block sequence number SARid and Fig 13B, Packet # is packet sequence number of the frame relay packet and seq # is sub-block sequence number of the segmented frame relay packet and Page 43, lines 8-26 and the last “read on the last sub block of the frame relay packet).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmadvand (USP 6542490) in view of Long (USP 5805822) and Cheng (USP 6226301).

Regarding claims 1-6 and 8-9, Ahmadvand discloses a system and method for transmitting data in a mobile communication system comprising the steps of segmenting a data stream into at least one consecutive frame having a variable data length, the data stream being segmented into a plurality of consecutive blocks having a variable data length which is a size is smaller than a predetermined size (Fig 3, Ref 32 segments the IP packets into variable length of LAC frames which includes a sequence number, then encapsulated them into RLP frames for transmitting via wireless channels). However, Ahmadvand fails to disclose each said consecutive block being segmented into a plurality of sub-consecutive blocks having a byte length attaching, at each head of the consecutive frames, a header including a first set of bits indicating the sequence number of a consecutive block to which a first sub-consecutive block is included and a second set of bits indicating the sequence number of a sub-consecutive block corresponding to the head and an indicator for indicating the last sub-block; and transmitting the header-attached consecutive frames. In the same field of endeavor, Long discloses each said consecutive block being segmented into a plurality of sub-consecutive blocks having a byte length attaching, at each head of the consecutive frames, a header including a first set of bits indicating the sequence number of a consecutive block to which a first sub-consecutive block is included and a second set of bits indicating the sequence number of a sub-consecutive block corresponding to the head and an indicator for indicating the last sub-block (Fig 2, a method of segmenting data stream into the block and then segment them sub-block and attach a header having segment number, 30, and sub segment number 32, and an indicator for indicating the last sub-block, Ref 34; See col. 12, lines 4-45 and col. 6, lines 15 to col. 7, lines 50) and a method and system for segmenting the size of the block according to the requested size (Col.1, lines 1-

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21). However, Ahmadvand and Long fails to disclose the RLP frame that includes a sequence number in the header. In the same field of endeavor, Cheng disclose a method and apparatus for segmentation and reassembly the data stream into RLP frame having sequence number (Fig 3-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and apparatus for segmenting the data stream into the block then sub segment the blocks into the sub block and attaching a header with the sequence numbers as disclosed by Long and RLP frame with sequence number as disclosed Cheng into Ahmadvand's system. The motivation would have been to prevent the loss of transmitting data.

Regarding claim 7, Ahmadvand, Long and Cheng do not disclose a forward resequencing for storing the transmitted frame in order to retransmit the transmitted frame. However, the examiner takes an official notice that a method and apparatus for shorting the packet according to the sequence number is well known and expected in the art at the time invention was made into the system of Ahmadvand, Long and Cheng. The motivation would have been to reduce the delay time in searching for the retransmitting packet in the buffer.

6. Claims 3 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal as applied to claims 1 and 5 above, and further in view of Barrett (USP 5546549).

Regarding claims 3 and 8, Agarwal fails to disclose the size of each consecutive block included in each consecutive frame is determined to a requested size. However, Barret discloses a method and system for segmenting the size of the block according to the requested size (Col.12, lines 5-36).

Since, Agarwal suggests the use of transmitting the data stream according to the bandwidth on the demand. Therefore, it would have been obvious to one of ordinary skill in the

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art at the time of the invention was made to apply a method of segmenting the data stream into the blocks according the requested size as disclosed by Barret's system. The motivation would have been to prevent the loss of transmitting data.

Regarding claim 7, Agarwal does not disclose a forward resequencing for storing the transmitted frame in order to retransmit the transmitted frame. However, the examiner takes an official notice that a method and apparatus for shorting the packet according to the sequence number is well known and expected in the art at the time invention was made into Agarwal's system. The motivation would have been to reduce the delay time in searching for the retransmitting packet in the buffer.

Response to Arguments

7. Applicant's arguments filed 11/26/04 have been fully considered but they are not persuasive.

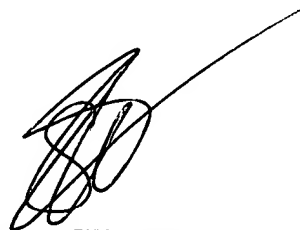
In response to pages 4-5, the applicant states that the prior arts do not disclose the claimed invention as stated in fig 7 of the present application. In reply, the limitation of the claims does not disclose the figure 7, which discloses the frame D that includes block number and the length of data of the first sub block "4" or previous length of a first sub block "2" as frame E. According to the claimed invention the prior arts still read on the claimed invention because each transported frame includes a packet number and sequence number for each segmented packet wherein the packet number can be the same for at least two frames with different sequence number as stated in the office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
2/14/05